UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Note to Reader
September 9, 1998

Background: As part of its effort to involve the public in the implementation of the Food Quality Protection Act of 1996 (FQPA), which is designed to ensure that the United States continues to have the safest and most abundant food supply, EPA is undertaking an effort to open public dockets on the organophosphate pesticides. These dockets will make available to all interested parties documents that were developed as part of the U.S. Environmental Protection Agency's process for making reregistration eligibility decisions and tolerance reassessments consistent with FQPA. The dockets include preliminary health assessments and, where available, ecological risk assessments conducted by EPA, rebuttals or corrections to the risk assessments submitted by chemical registrants, and the Agency's response to the registrants' submissions.

The analyses contained in this docket are preliminary in nature and represent the information available to EPA at the time they were prepared. Additional information may have been submitted to EPA which has not yet been incorporated into these analyses, and registrants or others may be developing relevant information. It's common and appropriate that new information and analyses will be used to revise and refine the evaluations contained in these dockets to make them more comprehensive and realistic. The Agency cautions against premature conclusions based on these preliminary assessments and against any use of information contained in these documents out of their full context. Throughout this process, if unacceptable risks are identified, EPA will act to reduce or eliminate the risks.

There is a 60 day comment period in which the public and all interested parties are invited to submit comments on the information in this docket. Comments should directly relate to this organophosphate and to the information and issues

available in the information in this docket. Once the comment period closes, EPA will review all comments and revise the risk assessments, as necessary.

These preliminary risk assessments represent an early stage in the process by which EPA is evaluating the regulatory requirements applicable to existing pesticides. Through this opportunity for notice and comment, the Agency hopes to advance the openness and scientific soundness underpinning its decisions. This process is designed to assure that America continues to enjoy the safest and most abundant food supply. Through implementation of EPA's tolerance reassessment program under the Food Quality Protection Act, the food supply will become even safer. Leading health experts recommend that all people eat a wide variety of foods, including at least five servings of fruits and vegetables a day.

Note: This sheet is provided to help the reader understand how refined and developed the pesticide file is as of the date prepared, what if any changes have occurred recently, and what new information, if any, is expected to be included in the analysis before decisions are made. **It is not meant to be a summary of all current information regarding the chemical.** Rather, the sheet provides some context to better understand the substantive material in the docket (RED chapters, registrant rebuttals, Agency responses to rebuttals, etc.) for this pesticide.

Further, in some cases, differences may be noted between the RED chapters and the Agency's comprehensive reports on the hazard identification information and safety factors for all organophosphates. In these cases, information in the comprehensive reports is the most current and will, barring the submission of more data that the Agency finds useful, be used in the risk assessments.

Jack Housenger, Acting Director
Special Review and Reregistration
Division

28/OPP-#34134

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 29 1998

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

January 17, 1995

MEMORANDUM

SUBJECT: Fenamiphos: EFED Response Risk Mitigation Proposal

FROM: Janice Jensen, Chief
Pesticide Management and Disposal Staff
Environmental Fate and Effects Division (7507C)

THRU: Evert K. Byington, Chief
Science Analysis and Coordination Staff
Environmental Fate and Effects Division (7507C)

TO: Barry O'Keefe, Chemical Review Manager
Reregistration Branch
Special Review and Reregistration Division (7508C)

The purpose of this memorandum is to provide the EFED response to the risk mitigation proposal for fenamiphos dated October 26, 1994, from John S. Thornton, Manager, Registrations, Miles Inc.

It is the opinion of the EFED Fenamiphos Team that the proposal submitted by Miles Inc, if fully implemented, is appropriate, directionally correct, and will reduce the environmental risks associated with the use of fenamiphos. However, the risks may not be reduced below our levels of concern.

Ground Water. Our greatest concern is the contamination of ground water with fenamiphos and its degradates. Because of its chemical and physical characteristics, and its affect on ground water in a monitoring study conducted in Florida, fenamiphos exceeds our levels of concern for ground-water quality and human health via drinking water. The lifetime Health Advisory for fenamiphos has been established at 2 ppb. Health Advisory levels have not been established for the degradates. Scientists from EFED and HED are working together to assess the risks for this chemical.

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Fenamiphos and its degradates were detected in ground water at extremely high levels in a monitoring study done for the State of Florida in 1990. The study showed concentrations of parent fenamiphos in ground water that ranged up to approximately 23 ppb, greatly exceeding the 2 ppb lifetime Health Advisory. High levels of two of the degradates, fenamiphos sulfoxide and fenamiphos sulfone, were detected at 204 ppb and 20 ppb, respectively. The highest level of total residues detected in ground water during one sampling event was 239 ppb, over 100 times the HAL.

Because of the properties of fenamiphos and its degradates, it is likely that the chemical will contaminate ground water in other vulnerable areas besides Florida. To better define the fate of fenamiphos in the environment, EFED requested that the registrant conduct several small-scale prospective ground-water monitoring studies. The State of Florida also requested a prospective study for this chemical because of its citrus use. The Florida study is anticipated to begin in 1995. Two other ground-water monitoring studies will also be conducted: one in a tobacco-growing area of the Southeast, and the other on either grapes or citrus in California.

After the studies have been completed, reviewed and analyzed, EFED will be in better position to propose next steps. However, in the meantime, the registrant should attempt to make every effort to stop the contamination of ground water by fenamiphos and its degradates. If contamination of ground water continues to occur from use in accordance with label directions or in accordance with commonly recognized practices, the registrant should consider voluntary cancellation of this chemical in the United States.

Ecological Impacts. Another area of concern is for the ecological impact of fenamiphos. The following mitigation measures were recommended by EFED in our fenamiphos RED chapter sent to SRRD on August 16, 1994 to reduce hazard to nontarget organisms: reduce application rates; reduce application frequency; use alternatives to fenamiphos from treatment to treatment or from season to season; and establish vegetative buffer zones around nearby aquatic environments.

EFED scientists most familiar with fenamiphos believe that Miles Inc has made a good faith effort to implement our recommendations for reducing ecological risks. Nonetheless, our scientists are uncertain if the proposed mitigation measures will reduce risks below our levels of concern. However, it is the opinion of EFED scientists that the risks may be at the lower end of the range of EFED risk calculations. This opinion is based on actual field incidence data collected over the twenty years that the chemical has been registered.

Summary. It is the opinion of the EFED Fenamiphos Team that the proposal submitted by Miles Inc, if fully implemented, is appropriate, directionally correct, and it will reduce the environmental risks associated with the use of fenamiphos. However, the risks may not be reduced below our levels of concern, especially for ground water. The

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registrant should attempt to make every effort to stop the contamination of ground water by fenamiphos and its degradates.

Please feel free to contact me at (703) 305-7706 if you have any questions or comments regarding this memorandum. EFED scientists would welcome the opportunity to work with SRRD and Miles Inc to implement their risk mitigation measures for fenamiphos.

cc: Esther Saito
Lawrence Schnaubelt
Irwin Hornstein
George Tompkins
Richard Felthousen
Estella Waldman
Kathy Monk
Sharlene Matten
Rachelle Kudrick